

ABSTRACT OF THE DISCLOSURE

A tower boom path is controlled in a boom lift vehicle such that the tower boom nose pin follows a predetermined path. The boom lift vehicle includes a telescoping lift tower boom pivotally coupled at one end to a vehicle base. A main boom is pivotally coupled to the tower boom nose pin at an opposite end of the tower boom. Raising and lowering of the tower boom between a fully retracted position and a raised position is effected by pivoting the tower boom relative to the vehicle base and telescoping the tower boom. The raised position is defined according to any position up to a maximum angle of the tower boom relative to the vehicle base and a maximum boom length. In order to reduce vehicle weight and expedite the tower boom lift function, pivoting of the tower boom relative to the vehicle base and telescoping of the tower boom are performed simultaneously so that the tower boom nose pin follows the predetermined path. With this arrangement, positions of the tower and main booms conventionally generating large turning moments on the vehicle can be avoided, and consequently, a counterweight of lower mass can be used.